UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/812,835	03/21/2001	Darren R. Kerr	202890US-25	2952

5073	7590	08/26/2004

EXAMINER
KIANERSI, MITRA

BAKER BOTTS L.L.P.
2001 ROSS AVENUE
SUITE 600
DALLAS, TX 75201-2980

ART UNIT	PAPER NUMBER
2143	

DATE MAILED: 08/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	09/812,835	KERR ET AL.
	Examiner	Art Unit
	mitra kianersi	2143

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>03</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>21 March 2004</u>.
2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-18* is/are pending in the application.
　　4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) *1-18* is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☒ The drawing(s) filed on <u>21 March 2004</u> is/are: a)☐ accepted or b)☒ objected to by the Examiner.
　　Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
　　Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
　　a)☐ All　b)☐ Some *　c)☐ None of:
　　　　1.☐ Certified copies of the priority documents have been received.
　　　　2.☐ Certified copies of the priority documents have been received in Application No. _____.
　　　　3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
　　　　　　application from the International Bureau (PCT Rule 17.2(a)).
　　* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
　　Paper No(s)/Mail Date _____

4)☐ Interview Summary (PTO-413)
　　Paper No(s)/Mail Date. _____ .
5)☐ Notice of Informal Patent Application (PTO-152)
6)☐ Other: _____ .

Claims 1-18 have been examined.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-18 are rejected under 35 U.S.C. 102(e) as being anticipated by

Cheriton et al. (US. Patent No. 6,091,725)

1.   As per claim 1, a method for routing messages in a network, said method

comprising the steps of:

-identifying a first one message of a first plurality of messages, said first plurality of
messages having at least one first routing treatment in common; (In the virtual circuit
approach, before any data can be transmitted, a virtual circuit must be first established
along the path from the source to the destination in advance of any communication.
After the virtual circuit is setup, the source can then send packets to the destination.
Each packet in the virtual circuit approach has a virtual circuit identifier, which is used to
switch the packet along the path from source to the destination, col 1, lines 46-54).
-recording said first routing treatment; (then the switch hardware performs all the packet
 processing steps indicated in the virtual path record, including traffic management and
 packet routing. Col 5, lines 34-37)
 -identifying a second one message of said first plurality of messages; (Uplink Pointer
 333 points to the next virtual path record to transmit to the source, downlink pointer 334
 points to the next virtual path record to transmit to the destination. Col 8, lines 16-18)
 -routing said second one message responsive to first routing treatment. (The next
 datagram to be sent on output port 801 is determined by current pointer 803 which
 points to the next entry in the transmit list 804 of linked virtual path entries. This
 method of organizing the output list 804 as a chain of all virtual paths waiting to
 transmit on output port 801 has the effect of giving round robin priority to datagram
 packets waiting to be transmitted from different virtual paths. Col 10, lines 22-28)
 for each station in the network, upon arrival of a packet to any station, a
 header of said packet containing a source address and a destination address,

performing the steps of:
-routing said packet to a second station that is directly linked to said one station

2.   As per claim 2, a method as in claim 1 wherein said first one message comprises packet; (datagram packet, abstract)

said first plurality of messages comprises stream of packets associated with selected source device and a selected destination device. (each datagram packet is a self-contained unit of data delivery. A typical datagram packet includes a globally unique source address, a globally unique destination address, a protocol type field, a data field, and a cyclic redundancy checksum ("CRC") to insure data integrity. col 2, lines 4-9)

3.   As per claim 3, a method as in claim 2, wherein said stream of packets is associated with a first selected port number at said source device and a second selected port number at said destination device. (the input port field has to match the actual input port number at which the datagram packet has been received. Col 17, lines 46-48) and (output port field 321 specifies the output port on which this datagram will be transmitted. Col 7, lines 51-52)

4.   As per claim 4, a method as in claim 1, wherein said first plurality of messages comprises a message flow. (the task of datagram flow processing between dedicated network switch hardware and dedicated network switch software, col 5, lines 21-24)

5.   As per claim 5, a method as in claim wherein said first plurality of messages comprises an ordered sequence, and said first one message has a selected position in said ordered sequence. (The next datagram to be sent on output port 801 is determined by current pointer 803 which points to the next entry in the transmit list 804 of linked virtual path entries. This method of organizing the output list 804 as a chain of all virtual paths waiting to transmit on output port 801 has the effect of giving round robin priority to datagram packets waiting to be transmitted from different virtual paths. Col 10, lines 22-28)

6.   As per claim 6, a method as in claim 1, wherein said first plurality of messages comprises a stream of messages between a selected pair of transport access points. an enhanced network access control method which can selectively control flows of datagram packets entering the network and traveling between network nodes. Col 5, lines 8-13)

7.   As per claim 7, a method as claim 1, wherein said step of recording comprises building an entry in a flow cache. (The amount of buffer resources and bandwidth

resources assigned to each flow can be individually controlled by network management. Col 5, lines 3-7)

8. As per claim 8, a method as in claim 1, comprising the step of identifying a message of a second plurality of messages, second plurality of messages having at least one second routing treatment in common, said second routing treatment differing from first routing treatment. (In the virtual circuit approach, before any data can be transmitted, a virtual circuit must be first established along the path from the source to the destination in advance of any communication. After the virtual circuit is setup, the source can then send packets to the destination. Each packet in the virtual circuit approach has a virtual circuit identifier, which is used to switch the packet along the path from source to the destination, col 1, lines 51-54) and (Uplink Pointer 333 points to the next virtual path record to transmit to the source, downlink pointer 334 points to the next virtual path record to transmit to the destination. Col 8, lines 16-18)

9. As per claims 15 and 9, a method wherein said routing treatment comprises access control information for said first one message. (the processing steps that can be specified for each flow include traffic management, flow control, packet forwarding, access control, and other network management functions. Abstract)

10. As per claims 10 and 16, a method wherein said routing treatment comprises a destination output port for routing said first one message. (Output port field 321 specifies the output port on which this datagram will be transmitted. Col 7, lines 51-52)

11. As per claims 11 and 17, a method comprising the steps of recording information about said first plurality of messages; then the switch hardware performs all the packet processing steps indicated in the virtual path record, including traffic management and packet routing. Col 5, lines 34-37)
and transmitting said information to at least one selected device on said network. (the "destination address" and the "source address" refer to the physical network device addresses contained in a datagram packet, both of which are unique within a network, col 6, lines 12-15) and (Uplink Pointer 333 points to the next virtual path record to transmit to the source, downlink pointer 334 points to the next virtual path record to transmit to the destination, col 8, lines 16-18).

12. As per claims 12 and 18, a method wherein said information comprises a transmission time for an initial one message in said plurality of messages; (Real time field 323 forces the switch to process this packet in real time mode, col 7, lines 51-52) a transmission time for a most recent one message said plurality of messages; (Real time field 323 forces the switch to process this packet in real time mode, which includes the act of dropping the packet if it cannot be sent within a certain time. Col 7, lines 51-52)

-a cumulative count of bytes in said plurality of messages; (or a variable size data field 204 ranging from 46 bytes to 1500 bytes, col 6, lines 49-53) and (the statistics field 340 maintains traffic statistics regarding the traffic received on this virtual path. Field 341 counts the number of packets received and field 342 counts the number of bytes received on this virtual path. Col 8, lines 19-23)
-a cumulative count of said one messages in said plurality of messages. (the statistics field 340 maintains traffic statistics regarding the traffic received on this virtual path. Field 341 counts the number of packets received and field 342 counts the number of bytes received on this virtual path. Col 8, lines 19-23)

13.   A method as in claim 11, comprising the steps of receiving said information at said selected device on said network; (each network device receiving a datagram packet examines the destination address included in the datagram packet and makes a local decision whether to accept, ignore, or forward this packet. Col 2, lines 10-15) recording said information in a database at said selected device; and set associate cache 601 through 604 via the four comparators 611 through 614. Assuming a valid virtual path tag was found in SRAM cache 601 then comparator 611 will indicate a "hit" signal on hit/miss wire 635 and enable tri-state buffer 621 to output the virtual path record stored in SRAM cache 601 on virtual path record bus 633. col 10, lines 50-56) making said information available to a second device on said network. (Switch hardware 409 then forwards and processes the datagram packet according to the fields of the virtual path record on bus 633 (FIGS. 6 and 4). Col 10, lines 58-60)

14.   As per claim 14, a system for routing packets in a network, said system comprising means for receiving a stream of packets, said stream of packets comprising a plurality of message flows, each said packet being associated with one selected message flow, each said message flow having at least one routing treatment in common; means for associating packets with a first one of said message flows;
-a flow cache having an entry associated with said first one message flow; (the network switch hardware provides a multiplicity of network ports, a shared memory buffer for

storing datagram packets, a virtual path cache that stores the state and processing
instructions specific to the active datagram packet flows. Col 5, lines 25-30)
-means for routing packets responsive to entries in said flow cache. (the network switch
hardware provides a multiplicity of network ports, a shared memory buffer for storing
datagram packets, a virtual path cache that stores the state and processing instructions
specific to the active datagram packet flows. Col 5, lines 25-30)

Conclusion

Any inquiry concerning this communication or earlier communications from the
examiner should be directed to Mitra Kianersi whose telephone number is (703) 305-
4650. The examiner can normally be reached on 7:00AM-4:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's
supervisor, David Wiley can be reached on (703) 308-5221. The fax phone number for
the organization where this application or proceeding is assigned is 703-872-9306.

Mitra Kianersi
Aug/12/2004

DAVID WILEY
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100